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BEFORE THE ARIZONA CORPORATION CO

COMMISSIONERS

GARY PIERCE- Chairman
BOB STUMP
SANDRA D. KENNEDY
PAUL NEWMAN
BRENDA BURNS

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AZ CORP COMMISSION
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Arizona Corporation Commission

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IN THE MATTER OF THE APPLICATION OF
ARIZONA PUBLIC SERVICE COMPANY
FOR A HEARING TO DETERMINE THE
FAIR VALUE OF THE UTILITY PROPERTY
OF THE COMPANY FOR RATEMAKING
PURPOSES, TO FIX A JUST AND
REASONABLE RATE OF RETURN
THEREON, TO APPROVE RATE
SCHEDULES DESIGNED TO DEVELOP
SUCH RETURN

DOCKET NO. E-01343A-11-0224

**STAFF'S NOTICE OF FILING DIRECT
TESTIMONY**

Staff of the Arizona Corporation Commission ("Staff") hereby files the Direct Testimony of
Howard Solganick (Cost of Service and Rate Design) and Laura Furrey in the above docket.

RESPECTFULLY SUBMITTED this 2nd day of December 2011.

Maureen A. Scott, Senior Staff Counsel
Charles H. Hains, Attorney
Janet F. Wagner, Assistant Chief Counsel
Scott Hesla, Attorney
Legal Division
Arizona Corporation Commission
1200 West Washington Street
Phoenix, Arizona 85007
(602) 542-3402

Original and thirteen (13) copies
of the foregoing filed this
2nd day of December 2011 with:

Docket Control
Arizona Corporation Commission
1200 West Washington Street
Phoenix, Arizona 85007

1 Copies of the foregoing mailed this
2 2nd day of December 2011 to:

3 Meghan H. Grabel
4 Thomas L. Mumaw
5 Pinnacle West Capital Corporation
6 400 North 5th Street, MS 8695
7 Phoenix, Arizona 85004
8 Attorneys for Arizona Public
9 Service Company

10 C. Webb Crockett
11 Patrick J. Black
12 Fennemore Craig, PC
13 3003 North Central Avenue, Suite 2600
14 Phoenix, Arizona 85012-2913
15 Attorneys for Freeport-McMoRan and
16 Arizonans for Electric Choice and
17 Competition (AECC)

18 Daniel W. Pozefsky, Chief Counsel
19 Residential Utility Consumer Office
20 1110 West Washington, Suite 220
21 Phoenix, Arizona 85007
22 Attorneys for RUCO

23 Michael A. Curtis
24 William P. Sullivan
25 Melissa A. Parham
26 Curtis, Goodwin, Sullivan,
27 Udall & Schwab, PLC.
28 501 East Thomas Road
Phoenix, Arizona 85012-3205
Attorneys for the Town of Wickenburg
and Town of Gilbert

Timothy M. Hogan
Arizona Center for Law in the Public Interest
202 East McDowell Road, Suite 153
Phoenix, Arizona 85004
Attorneys for WRA, SWEEP, ASBA/AASBO

David Berry
Western Resource Advocates
Post Office Box 1064
Scottsdale, Arizona 85252-1064

Barbara Wyllie-Pecora
14410 West Gunsight Drive
Sun City West, Arizona 85375

Kurt J. Boehm
Boehm, Kurtz & Lowry
36 East Seventh Street, Suite 1510
Cincinnati, Ohio 45202
Attorneys for The Kroger Co.

Jeffrey W. Crockett, Esq.
Brownstein Hyatt Farber Schreck LLP
40 North Central Avenue, 14th Floor
Phoenix, Arizona 85004
Attorneys for Arizona Association of Realtors

Michael W. Patten
Roshka DeWulf & Patten, PLC
One Arizona Center
400 East Van Buren Street, Suite 800
Phoenix, Arizona 85004
Attorneys for Tucson Electric Power Company

Bradley S. Carroll
Tucson Electric Power Company
One South Church Avenue, Suite UE 201
Tucson, Arizona 85701

Cynthia Zwick
1940 East Luke Avenue
Phoenix, Arizona 85016

Michael M. Grant
Gallagher & Kennedy, PA
2575 East Camelback Road
Phoenix, Arizona 85016-9225
Attorneys for AIC

Gary Yaquinto, President & CEO
Arizona Investment Council
2100 North Central Avenue, Suite 210
Phoenix, Arizona 85004

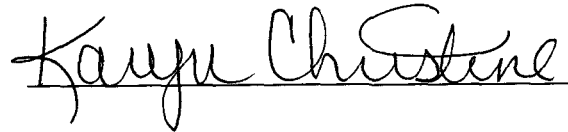
Karen S. White, Staff Attorney
Air Force Utility Law Field Support Center
AFLOA/JACL-ULFSC
139 Barnes Drive
Tyndall AFB, Florida 32403

Greg Patterson, Of Counsel
Munger Chadwick
2398 East Camelback Road, Suite 240
Phoenix, Arizona 85016
Attorneys for Arizona Competitive Power
Alliance

1 Nicholas J. Enoch
Jarrett J. Haskovec
2 Lubin & Enoch, PC
349 North Fourth Avenue
3 Phoenix, Arizona 85003
Attorneys for IBEW Locals 387, 640 & 769
4
Lawrence V. Robertson, Jr.
5 Post Office Box 1448
Tubac, Arizona 85646
6 Attorney for Southwestern Power Group II,
LLC; Bowie Power Station, LLC; Noble
7 Americas Energy Solutions LLC;
Constellation NewEnergy, Inc.; Direct
8 Energy, LLC and Shell Energy North
America (US), LP
9
Laura E. Sanchez
10 Natural Resources Defense Council
Post Office Box 287
11 Albuquerque, New Mexico 87103
12
Jay I. Moyes
Steve Wene
13 Moyes Sellers & Hendricks
1850 North Central Avenue, Suite 1100
14 Phoenix, Arizona 85004
Attorneys for AzAg Group
15
Jeffrey J. Woner
16 K.R. Saline & Assoc., PLC
160 North Pasadena, Suite 101
17 Mesa, Arizona 85201
18
Scott S. Wakefield
Ridenour, Hienton & Lewis, PLLC
19 201 North Central Avenue, Suite 3300
Phoenix, Arizona 85004-1052
20 Attorneys for Wal-Mart Stores, Inc.
21
Steve W. Chriss
Senior Manager, Energy Regulatory Analysis
22 Wal-Mart Stores, Inc.
2011 S.E. 10th Street
23 Bentonville, Arkansas 72716-0550
24
Craig A. Marks
Craig A. Marks, PLC
25 10645 North Tatum Boulevard
Suite 200-676
26 Phoenix, Arizona 85028
Attorney for AARP
27
28

Douglas V. Fant
Law Offices of Douglas V. Fant
3655 West Anthem Way
Suite A-109, PMB 411
Anthem, Arizona 85086

Amanda Ormond
Southwest Representative
Interwest Energy Alliance
7650 South McClintock Drive
Suite 103-282
Tempe, Arizona 85284



BEFORE THE ARIZONA CORPORATION COMMISSION

GARY PIERCE

Chairman

BOB STUMP

Commissioner

SANDRA D. KENNEDY

Commissioner

PAUL NEWMAN

Commissioner

BRENDA BURNS

Commissioner

IN THE MATTER OF THE APPLICATION OF) DOCKET NO. E-01345A-11-0224
ARIZONA PUBLIC SERVICE COMPANY FOR)
A HEARING TO DETERMINE THE FAIR)
VALUE OF THE UTILITY PROPERTY OF THE)
COMPANY FOR RATEMAKING PURPOSES,)
TO FIX A JUST AND REASONABLE RATE OF)
RETURN THEREON, TO APPROVE RATE)
SCHEDULES DESIGNED TO DEVELOP SUCH)
RETURN)
_____)

DIRECT

TESTIMONY

OF

HOWARD SOLGANICK

FOR THE

UTILITIES DIVISION

ARIZONA CORPORATION COMMISSION

DECEMBER 2, 2011

TABLE OF CONTENTS

	<u>Page</u>
INTRODUCTION	1
DIRECT TESTIMONY	1
JURISDICTIONAL ALLOCATION	2
CLASS COST OF SERVICE	4
REVENUE ALLOCATION	7
RATE DESIGN	8

SCHEDULES

Summary of Testimonies	HS-5
Staff Revenue Allocation.....	HS-6
Residential Rate Design.....	HS-7
Present Residential Rates vs. Present Low Income Rates	HS-8

EXECUTIVE SUMMARY
ARIZONA PUBLIC SERVICE COMPANY
DOCKET NO. E-01345A-11-0224

My testimony reviews Arizona Public Service Company's ("Company") jurisdictional allocation study and the cost of service study. Based upon the Arizona Corporation Commission's Utilities Division's ("Staff") recommended small rate decrease, Staff recommends an across the board allocation of the revenue decrease among the five customer classes.

Staff recommends that the residential class rate decrease be accomplished by reducing the Basic Service Charge. For the general service and water pumping classes the rate decrease should be accomplished by reducing customer and demand charges across the board. For the lighting classes, Staff recommends across the board decreases.

In order to make the low-income and medical program (Riders E-3 and E-4) clearer and easier for customers to understand, Staff recommends that the existing benefits of the program be retained at the current level. To provide a clear measure of the total value of the programs for participants, the existing low-income rate schedules should be eliminated and replaced by larger (offsetting) Riders (E-3 and E-4).

Staff has analyzed the miscellaneous changes to rate schedules proposed by the Company and offers recommendations for additional requirements or improvements.

Finally, Staff recommends that the Company be ordered to perform a rate research program covering a number of issues, including the interaction between decoupling and rate design potential changes in blocks and tiers, and guidelines for the review, adoption and discontinuance of rate schedules and riders.

INTRODUCTION

Q. Please state your name, position and business address.

A. My name is Howard Solganick. I am a Principal at Energy Tactics & Services, Inc. My business address is 810 Persimmon Lane, Langhorne, PA 19047. I am performing this assignment under subcontract to Blue Ridge Consulting Services, Inc.

Q. Have you previously submitted testimony in this proceeding?

A. Yes. In this proceeding I submitted testimony in regard to decoupling on November 18, 2011. My qualifications are set forth in that testimony.

DIRECT TESTIMONY

Q. For whom are you appearing in this proceeding?

A. I am appearing on behalf of the Arizona Corporation Commission ("Commission") Utilities Division ("Staff").

Q. What is the purpose of your testimony?

A. My testimony analyzes Arizona Public Service Company's ("APS" or "Company") jurisdictional and class cost of service studies and offers a proposed revenue allocation between major classes and a proposed rate design.

Based on my review of the Company's application, supporting testimony, and responses to data requests, I make the following recommendations:

- The Commission should accept the Company's jurisdictional allocation study.
- The Commission should accept the Company's class cost of service study.

- 1 • Based on the net revenue decrease developed by Staff, the Commission should
- 2 accept the revenue allocation proposed by Staff.
- 3 • Based on the revenue allocation developed, the Commission should accept the rate
- 4 design proposed by Staff.
- 5 • The Commission should direct the Company to revise its low-income rate design
- 6 as proposed by Staff.
- 7 • The Commission should direct the Company to plan and perform rate research as
- 8 proposed by Staff.
- 9

10 **JURISDICTIONAL ALLOCATION**

11 **Q. Why is jurisdictional allocation important?**

12 A. The Company provides services to a number of entities commonly called sale for resale.
13 The Federal Energy Regulatory Commission ("FERC") regulates wholesale transactions.
14 In developing its revenue requirements and before performing any allocation of those
15 requirements among rate classes, the costs (capital and expenses) and revenues from the
16 wholesale customers must be removed or excluded from the jurisdictional revenue
17 requirements process. To develop those exclusions the Company provided its
18 jurisdictional allocations as Schedule GJ.¹ The results indicated that the overall rate of
19 return for the Company was 7.99 percent compared to its jurisdictional rate of return of
20 8.29 percent and a return of 6.46 percent for all other (non-Commission) customers.

21
22 **Q. Are there differences between the Company's jurisdictional allocation and the**
23 **allocation within the Class Cost of Service Study ("CCOSS")?**

24 A. Yes. The most significant difference is the use of a four coincident peaks for June, July,
25 August and September ("4CP") allocator for production plant and related items within the

¹ Attachment ZJF-1

1 jurisdictional allocation as compared to the use of an average and excess demand ("AED")
2 allocator within the CCSS.

3
4 **Q. Is the application of the 4CP method appropriate?**

5 A. The FERC has used a three part methodology² to determine if a production allocator
6 should focus on a season or the entire year. I performed this test for the years 2011
7 through 2015 based on information provided by the Company. Based on this
8 methodology the use of a 4CP allocator at this level is appropriate.

9
10 **Q. Is the application of an AED allocator appropriate within a class cost of service**
11 **study?**

12 A. The Commission decided this issue in Decision No. 69663 (June 28, 2007) at pages 70-71
13 following the litigation of the issue during that case. I have also recommended the use of
14 the AED allocator in a number of other cases and consider its use here appropriate.

15
16 **Q. Is this allocator difference appropriate?**

17 A. The FERC has required the use of the 4CP allocator³ and the Company has complied with
18 this requirement and further applies it to its jurisdictional allocation to be "consistent with
19 the allocation method that APS is required to use in its cases before the FERC "and to
20 prevent" the potential for "stranded" costs that cannot be recovered from either
21 jurisdiction."⁴ The Company's position is appropriate because it is responding to two
22 different regulatory bodies.

23

² FERC Docket Nos. EL05-19-002 and ER05-168-001, paragraph 76

³ Fryer Direct 10:19-23 and APS Response to Staff Data Request ("STF") 3.17

⁴ Fryer Direct 10:20

1 **Q. Did you review other aspects of the jurisdictional allocation?**

2 A. I performed a review of the allocations, reviewed the answers to Staff Data Requests, and
3 conducted an informal technical conference with the Company to understand certain
4 aspects of the jurisdictional allocation.

5
6 **Q. Is the Company's jurisdictional allocation appropriate for its use to develop the**
7 **CCOSS?**

8 A. Yes it is.
9

10 **CLASS COST OF SERVICE**

11 **Q. Has the Company provided a cost of service study?**

12 A. The Company provided a CCOSS based on the Test Year (twelve month period ended
13 December 31, 2010).⁵ This schedule provides the individual class returns and the Index
14 Rate of Return ("IROR") for the Company's five major customer classes.
15

16 **Q. What is Index Rate of Return ("IROR")?**

17 A. IROR is the ratio of any class' rate of return to the rate of return of the utility. IROR is
18 also called the unitized rate of return in some jurisdictions. It is a useful barometer of how
19 well individual classes and subclasses compare to each other and support the cost of
20 service for the utility as a whole. Ideally, all classes would approach an IROR of 1.0.
21

22 **Q. What is the purpose of a fully allocated cost of service study?**

23 A. Just as the rate case process studies each element of the Company's operations to
24 determine the overall cost to operate the Company efficiently and effectively, a fully
25 allocated cost of service study attempts to determine the individual cost to serve each

⁵ Fryer Direct, Attachment ZJF-4, Schedule GE-1

1 customer class and subclass. A fully allocated cost of service study is intended to enable a
2 commission to allocate revenue requirements among customer classes.

3
4 **Q. How does a regulator use the cost of service study?**

5 A. Because customer classes use the utility's system on an interrelated or shared basis,
6 regulators have historically used a fully allocated cost of service study as a guideline to
7 allocate revenue among classes. Additionally, when determining revenue allocation,
8 regulators have a responsibility to consider not only the utility's financial condition and
9 requirements, but also economic, social and other factors that may affect customers.

10
11 **Q. Are there limitations to a cost of service study?**

12 A. Yes, a cost of service study involves judgment and decisions on the part of the practitioner
13 in making allocations among customer classes. In some situations, decisions are made to
14 use a particular allocation factor for a particular account. In other situations, data used to
15 develop an allocation factor are not always complete and/or timely, and the practitioner
16 must deal with the resulting uncertainty. Therefore, the cost of service study acts as a
17 guide to revenue allocation and can be used to assist rate design.

18
19 **Q. Did the Company adjust or normalize its revenues?**

20 A. The Company used a 2010 Test Year and then adjusted it to reflect more normal or
21 appropriate (from the Company's viewpoint) conditions. The Company adopted pro
22 forma revenue adjustments for weather normalization, customer annualization and the
23 low-income discount program.⁶

24

⁶ Miessner Direct 35:14-20

1 **Q. Have you reviewed the cost of service study presented by the Company?**

2 A. Yes. The CCOSS was provided as Schedule GE-1 and further expanded to include rate
3 classes in Schedule GE-2 for General Service and GE-3 for residential rates classes.

4
5 **Q. Did you review other aspects of the CCOSS?**

6 A. I performed a review of the allocations, reviewed the answers to Staff Data Requests, and
7 conducted an informal technical conference with the Company to understand certain
8 aspects of the CCOSS.

9
10 **Q. Is the Company's CCOSS appropriate for its use as a guideline to develop a revenue
11 allocation proposal?**

12 A. Yes, it is.

13
14 **Q. What are the relative positions of the various rate classes and subclasses?**

15 A. As a high level indicator, I use the IROR based on the return of the ACC Jurisdiction at
16 8.29 percent. As shown in Schedule GE-1, the General Service and Dawn to Dusk
17 customer classes are providing an above average return, while the residential, water
18 pumping and street lighting classes are providing below average returns.

19
20 As shown in Schedule GE-3, the Residential E-12 rate schedule has a return (7.98 percent,
21 IROR 0.963) below the ACC Jurisdiction, compared to the residential Time of Use
22 ("TOU") rate schedules, which have returns (4.09 percent to 5.35 percent, IROR 0.591 to
23 0.645) well below the ACC Jurisdiction.

24
25 As shown in Schedule GE-2, all of the general service rate classes are providing a return
26 above the ACC Jurisdiction with the exception of the House of Worship (Schedule E-20),

1 which has a return (3.98 percent, IROR 0.480) well below any other class or subclass.
2 Within the general service rate schedules, the TOU schedules have higher returns (and
3 IROR) than their non-TOU counterparts.
4

5 **REVENUE ALLOCATION**

6 **Q. What principles do you use to allocate revenue among rate classes?**

7 A. I use the following principles:

- 8
- 9 • The individual rate classes (in this case residential, general service, water pumping
10 and lighting) should be gradually moved toward an IROR of 1.000 over one or
11 more rate cases depending on the frequency of rate cases and the distance of the
12 class' IROR from 1.000.
- 13 • There should be an upper bound of 150 percent for any class' percentage increase
14 in revenue compared to the overall percentage increase in revenue.
- 15 • There should be a lower bound of 50 percent for any class' increase compared to
16 the overall increase.
- 17 • In the case when a company receives a decrease in revenue requirements, no class
18 should receive a rate increase.
- 19

20 **Q. Does the recommended net revenue decrease proposed complicate the revenue**
21 **allocation process?**

22 A. The net revenue decrease of \$7,443,000 recommended by Staff witness Ralph Smith is a
23 small percentage of the total revenue collected and therefore great changes to the existing
24 rate structure cannot be accomplished. The positive side to this predicament is that the
25 proposed net revenue decrease will have a limited effect on customers.
26

1 **Q. In light of the small decrease, what revenue allocation between rate classes do you**
2 **recommend?**

3 A. Due to the small level of the Staff's recommended decrease, I suggest that the decrease be
4 allocated "across the board" on a revenue basis. This proposed revenue allocation avoids
5 the potential for customer confusion when the rate order details a revenue reduction but a
6 class receives an increase. My recommended revenue allocation for the five customer
7 classes is shown in Attachment HS-6.

8
9 **Q. If the Commission ultimately decides that a revenue increase is appropriate what**
10 **revenue allocation would you recommend?**

11 A. Using my revenue allocation principles and applying them to this case, I found that no
12 significant movement of IROR could be accomplished without a disproportionate
13 percentage change on the five customer classes. Further, the water pumping and lighting
14 customer classes are small in comparison to the residential and general service customer
15 classes, which balance each other during revenue allocation. Therefore, my revenue
16 allocation would be determined by the 150 percent and 50 percent principles. If the
17 Commission were to award the Company a revenue increase very different from the Staff
18 recommendation, my revenue allocation principles are still applicable.

19
20 **RATE DESIGN**

21 **Q. What underlying principles do you use for rate design?**

22 A. For residential and small general service customers, I lean towards simplicity where
23 possible. This would include a limited number of rate schedules and riders. I recognize
24 that one rate schedule does not fit all customers and that schedules that limit or shift peak
25 consumption have real value both for customers and for system planners.
26

1 In recognition of the implementation of advanced metering infrastructure ("AMI"), I
2 recommend that the Basic Service Charge ("BSC") for similar customers on different rate
3 schedules should be the same, although the transition to parity may take some time. This
4 recognizes that costs are the same for metering regardless of whether the customer
5 chooses a standard rate or a TOU rate. Smart meters have the capability to report
6 consumption by interval, and then the usage by periods is determined by data analysis
7 rather than by meter readings. Thus, the same meter and software can be used to provide
8 meter reading for most rate forms at approximately equal cost.

9
10 **Q. What changes do you propose for the residential rate class?**

11 A. Due to the very small and negative change in revenue allocated to the residential class, I
12 recommend that the decrease be applied to the BSC. This will provide a visible decrease
13 for every residential customer.

14
15 Attachment HS-7 provides the details of my initial residential rate design, which is an
16 equal decrease in the BSC for all five of the Company's non low-income residential rate
17 schedules.

18
19 **Q. If the Commission ultimately decides that a revenue increase is appropriate, what
20 residential rate design would you recommend?**

21 A. In recognition of the difference in IROR, I recommend that the TOU rate schedules ET-1,
22 ECT-1, ET-2 and ECT-2 receive a higher increase than the non-TOU E-12 rate schedule.

23
24 At the same time, I recommend that the BSC for the TOU schedules be moved closer to
25 the BSC for the E-12 rate schedule to start the convergence to one BSC. The Company

1 indicates that AMI continues to be implemented and by the end of 2012 will have over
2 950,000 customers with smart meters.⁷

3
4 The Company provided unit cost data for the BSC charges for the various residential
5 rates.⁸ This information contains identical costs for customer accounts/sales, billing and
6 meter reading. The costs for metering are lower (\$1.27) for E-12 customers compared to
7 TOU customers. The Company is proposing to narrow the gap between the BSC of each
8 residential rate schedule, but has requested a monthly BSC of \$11.86 and \$17.61
9 respectively.⁹ The Company explained this difference as its attempt to capture a portion
10 of the distribution transformation charges.¹⁰ This attempt is obvious in APS 14583, where
11 the E-12 rate is assigned 0 percent, the ET-1, 2 are assigned 30 percent, and the ECT-1, 2
12 are assigned 24 percent of the distribution transformer and secondary revenue
13 requirements.¹¹ The Company discussed this during the informal technical conference and
14 acknowledged that the 0 percent allocation was made to avoid too large of an increase for
15 E-12 customers.

16
17 I do not support the Company's inclusion of varying portions of the distribution
18 transformation costs in the BSC. The Company has provided no evidence to support this
19 transfer of demand costs into a customer component or to explain why the percentage
20 varies among classes and subclasses. While my BSC recommendation may make the
21 residential revenue slightly less stable, this is counteracted by Staff's proposed Lost Fixed
22 Cost Revenue mechanism.

23

⁷ APS AMI Plan Biannual ACC Report page 1 (September 9, 2011)

⁸ APS Response to STF 3.27 APS 14583

⁹ Miessner Direct 8:18

¹⁰ Miessner Direct 8:7-11

¹¹ APS Response to STF 3.27 APS 14583

1 **Q. Have you reviewed the Company's proposal for an experimental residential peak**
2 **rate?**

3 A. The Company is proposing Rate Rider Schedule PTR-RES as an experimental program.
4 This program offers a "carrot" for customer participation and does not pay for the
5 customer's commitment unless the Company requests, and the customer provides, a
6 critical period load reduction. The Company has provided its calculation of the \$0.25 per
7 kWh rebate.¹² The program specifies that there will be at least 6 and a maximum of 18
8 five-hour events annually. This should test a customer's commitment to respond to the
9 critical peak rather than serving as a rate discount.

10
11 Experimentation that can lead to more responsive rate forms should be encouraged;
12 however, the approval of this program should require the Company to provide details on
13 its proposed methods of analysis, solicitation, and selection of customers as well as the
14 customer education it will offer before entry into the program (and for customers in the
15 program) as the critical peak concept and baseline estimation protocol may be complex.

16
17 There is a discrepancy between the Company's testimony and the proposed rate rider
18 schedule. The testimony indicates that this rider is available to E-12 and ET-2
19 customers¹³, while the tariff sheet indicates that it is available to customers served under
20 Rate Schedule ET-2 and also requires the customer to have an Advanced Metering
21 Infrastructure meter¹⁴. I recommend that the tariff sheet be amended to allow E-12
22 customers (properly metered) to participate. This will also allow the Company to
23 determine if participation and performance are different between E-12 and ET-2
24 customers.

¹² Workpaper CAM_WP3

¹³ Miessner Direct 13:15

¹⁴ Miessner Direct Attachment CAM-5

1 **Q. Have you reviewed the Company's proposal to revise the low-income (Residential**
2 **Service Energy Support) and medical (Medical Care Equipment Support)**
3 **programs?**

4 A. As a result of my review, I recommend a number of changes to simplify the structure of
5 the program and reduce potential confusion upon entry into and exit from the program.
6 These changes should be implemented regardless of the level of the revenue decrease (or
7 increase) finally determined, as the revisions are approximately revenue neutral.

8
9 I recommend that the Company should implement the low-income or medical "discount"
10 as a single line item on the customer's bill using the "regular" residential rate schedules
11 rather than as separate low-income rate schedules and an accompanying E-3 or E-4 rider.
12 At present, a low-income customer can see the value of the E-3 rider discount, but cannot
13 see the value of the reduced charges within the low-income rate schedules.

14
15 As presently implemented, the E-3 and E-4 programs overlap the low-income rates, which
16 are different from the comparable rate schedules. When a customer becomes eligible for
17 the E-3 or E-4 program, their rate schedule changes and a rider is also applied.

18
19 To highlight the total value of the programs provided by other customers, a simpler/clearer
20 method would allow a customer to continue on their existing residential rate schedule and
21 then have all of the benefits be provided through a rate rider. Customers also would not
22 need any explanation of why they had been moved to a new (higher cost) rate schedule
23 when their E-3 eligibility ceased. Increasing the value of the E-3/E-4 riders and
24 eliminating the five low-income versions of the residential rates will provide simplicity
25 and clarity to this area of the Company's tariff.
26

1 **Q. The Company has proposed applying the PSA-1 and DSMAC adjustors to the low-**
2 **income rate schedules¹⁵; do you agree with this proposal?**

3 A. The Company's argument to include the PSA-1 and DSMAC adjustors for these
4 customers is supported by concepts of rate clarity and simplicity. Additionally, as the
5 PSA can and does go negative at times, the existing methodology that ignores the PSA
6 now negatively impacted customers. For these reasons, the Company's position is
7 appropriate. However, the E-3 and E-4 discounts should be applied to the total bill that
8 includes the adjustors.

9
10 **Q. Have you been able to analyze the impact of your proposal to eliminate the low-**
11 **income rate schedules and increase the value of the E-3/E-4 riders?**

12 A. Due to the interrelationship of the Company's existing five residential rate schedules and
13 the five residential low-income rate schedules along with the E-3 and E-4 discount riders,
14 the modeling and revenue proof are complicated. I approached the Company and they
15 cooperatively modified the Company's residential class revenue proof to allow a review of
16 its proposal along with the ability to evaluate other alternatives. The values of the
17 individual portions of the low-income rate schedules and the E-3/E-4 riders were derived
18 from this modified revenue proof.

19
20 Starting with the Company's revenue proof, I first compared the existing residential rate
21 schedule to the corresponding low-income rate schedule using the billing determinants for
22 participants. The results of this calculation are shown on Attachment HS-8 (page 1). This
23 "hidden" portion of the program provides Test Year benefits of over \$9,938,000 for E-3
24 customers and over \$85,000 for E-4 customers.

25

¹⁵ Miessner Direct 11:1-3 and 12:16-17:9

1 Again using the revenue proof, I extracted the value of the rider E-3/E-4 discounts. The
2 results of this calculation are shown on Attachment HS-8 (page 2). This "visible" portion
3 of the program provides Test Year benefits of over \$10,652,000 for E-3 customers and
4 over \$148,000 for E-4 customers.

5
6 I calculate the present Test Year value/cost of excluding E-3/E-4 customers from the PSA-
7 1 and DSMAC as over \$-4,086,000 and \$1,962,000 respectively (Attachment HS-8 (page
8 3)).

9
10 Taken together, the total Test Year value to E-3/E-4 customers is over \$18,700,000. This
11 total amount would flow through the System Benefits calculation.¹⁶ Because the System
12 Benefits calculation applies to all customers and is calculated on an energy basis, the
13 treatment is consistent with Decision No. 71448 that orders that the E-3 & E-4 discount
14 should be spread across customer classes on a per kWh basis. The impact of the PSA-1
15 and DSMAC adjustors within the System Benefits calculation is offset by including all
16 customer usage in these two adjustors.

17
18 **Q. The Company has proposed closing the gap between the standard residential rates**
19 **and the respective low-income rate schedule by approximately 3.0 percent – 3.6**
20 **percent.¹⁷ Do you support this recommendation?**

21 **A.** No. The Company has not provided evidence to support closing the gap. At this time of
22 adverse economic conditions, I do not recommend that the differential established in the
23 last case be reduced. Further, implementation of this Company recommendation would
24 subject low-income customers to a net revenue increase unlike all other customers.

25
¹⁶ APS Informal Data Response 2 APS 14996 page 5

¹⁷ Miessner Direct 10:17-25

1 **Q. How do you propose to modify the structure of the E-3 and E-4 riders?**

2 A. I propose to retain the “tiered and capped” construction of the discounts to encourage
3 customers to control their overall usage while providing the discounts that previous
4 decisions have established. To maintain the same approximate discount levels for
5 customers within each tier at present Test Year rates, the discount percentages and caps
6 would change as shown in Attachment HS-8 (page 4). I address the future determination
7 of the tiers further in my testimony. The discount percentages and caps may change
8 depending on the final magnitude of the revenue decrease/increase.

9
10 **Q. What changes do you propose for general service customers?**

11 A. I recommend a lower emphasis on volumetric rates, and I recommend moving the BSC
12 and demand rates towards cost-based rates. To reflect the small decrease, I recommend
13 that the BSC (customer) and demand rates be reduced across the board.

14
15 **Q. Is the Company’s proposal to modify Rate Schedule E-32 L appropriate?**

16 A. The Company is proposing to eliminate the first tier energy charge and shift the implicit
17 demand now collected by the volumetric charge into the demand portion of the rate.¹⁸
18 This transition is appropriate, as it will stabilize revenue and decrease the need for a
19 decoupling mechanism. The implicit demand was equal to \$8.382 per kW-month.

20
21 However, the Company should account for the incremental revenue resulting from the
22 addition of an 80 percent demand ratchet to rate schedule E-32 L. The Company has
23 added a demand ratchet with the same wording as the existing E-32 XL provision. The
24 revenue proof for E-32 L does not show any incremental demand ratchet revenue.

25

¹⁸ Miessner Direct 18:8

1 **Q. What changes should be made to Rate Schedule E-20 House of Worship?**

2 A. Rate Schedule E-20 (House of Worship) should be unfrozen for one year from the date
3 new rates in this case are implemented. The Company is proposing a number of changes
4 to the general service rate schedules. To avoid concerns that a customer may be locked
5 into an inappropriate rate schedule, reopening this schedule for a limited period of time
6 would be a reasonable policy decision.

7
8 Unlike all other general service rates, the E-20 rate schedule has a very low IROR, and if a
9 revenue increase had been determined, I would have recommended a higher revenue
10 allocation for this schedule as compared to other general service schedules.

11
12 **Q. Is the Company's recommendation to remove the monthly contract minimum charge**
13 **provisions for small and medium general service schedules E-32 S, E-32 M, E-32**
14 **TOU S and E-32 TOU M appropriate?**

15 A. The Company suggests that the minimum charge provision is unneeded to protect the
16 Company's investment in wires capacity, "an investment that is typically not fungible to
17 other customers."¹⁹ The Company argues that this proposal will simplify rates and reduce
18 bill inquiries without unduly creating a risk of shifting wires costs to other customers. The
19 Company proposes this change for small and medium general service customers.
20 Arguably, these customers are more likely to share some facilities than larger customers.
21 In the Test Year, few customers were subject to this provision.²⁰ In the interest of rate
22 simplicity and clarity, I support this proposal.

23
¹⁹ Miessner Direct 17:10

²⁰ APS Response to STF 7.2 and 8.1

1 Rate Rider Schedule E-54 removes the alternative minimum bill for seasonal agricultural
2 customers.²¹ With the approval of the removal of the minimum bill provisions discussed
3 above, this rider should be made applicable for Rate Schedule E-32 L customers as the
4 minimum bill provision still applies to this schedule.

5
6 Rate Rider Schedule E-53 is designed to remove the alternative minimum bill for sports
7 field lighting.²² With the approval of the removal of the minimum bill provisions
8 discussed above, this rider can be removed and existing customers will be subject to the
9 BSC for their chosen rate, which represents the charges necessary to service these
10 customers.

11
12 **Q. Have you reviewed the Company's proposal to establish an Experimental Rate Rider**
13 **Rate Schedule AG-1?**

14 **A.** Yes. The Company is proposing this experimental rate for very large customers with
15 demands over 10 MW.²³ I recommend the adoption of this experimental rate program
16 with a requirement that the Company provide a structured, predefined program to report
17 on the impact of this rate. Reports should be made quarterly and indicate the level of
18 customer adoption, the rates attained by the program, the savings afforded to participating
19 customers, the costs to the Company to establish and maintain this service for
20 participating customers, the profitability of this rate, and the impact of this rate on the
21 costs and rates of non-participants, including impacts on other rates and adjustors such as
22 the PSA.

23

²¹ Miessner Direct 19:5

²² Miessner Direct 18:20

²³ Miessner Direct 20:13

1 The tariff sheet indicates "the Company will subsequently contract with the Generation
2 Service Provider on behalf of the customer for the specified power and manage the
3 contract for the customer."²⁴ To protect all other customers, the approval of this
4 experimental rider should require the Company not to commit to purchase, accept or take
5 any power or incur any costs should the AG-1 customer decrease its consumption.

6
7 **Q. Have you reviewed the Company's proposal to establish a Rate Rider Rate Schedule**
8 **IRR?**

9 A. Yes. The Company is proposing this interruptible rate for extra-large customers that will
10 pay them capacity and energy payments for interruptible load as filed in Docket No. E-
11 01345A-10-0250.²⁵ This proposal require at least two interruptions annually, which
12 should minimize participation of customers who are focused on lower costs, rather than
13 providing load curtailment. I recommend that the adoption of this rate rider should
14 include a requirement that the Company provide a structured, predefined program to
15 report on the impact of this rate. Reports should be made to Staff quarterly and indicate
16 the level of customer adoption, the amount, time and impact of interruptions under this
17 program, the payments made to participating customers, the Company's costs to establish
18 and maintain this service for participating customers, the profitability of this rate, and the
19 impact of this rate on the costs and rates of non-participants, including impacts on other
20 rates and adjustors such as the PSA.

21
22 **Q. Is the Company's proposal to modify Rate Schedules E-221 Water Pumping Service**
23 **and E-221-8T Water Pumping Service T.O.U. appropriate?**

24 A. The Company is proposing to change the on-peak hours for schedule E-221-8T to 11 AM
25 to 9 PM to better reflect the Company's on-peak load and be consistent with other general

²⁴ Miessner Direct Attachment CAM-7 Page 1

²⁵ Miessner Direct 20:13

1 service rates.²⁶ Under the present rate schedule, the customer can choose 8 consecutive
2 hours between 9 AM and 10 PM. This allows a customer to declare the period of 5 PM
3 and later as off-peak. A water system that was operated to achieve reductions ending at 5
4 PM might produce its greatest impact shortly after that period. I recommend the adoption
5 of this proposal in order to ensure that a customer does not shift load into the period
6 shortly after 5 PM to the detriment of the Company's energy costs during peak time.

7
8 The Company is proposing to remove the option for a water pumping customer to select
9 one day per week as an off-peak day. This present provision has a "buy through" discount
10 and penalty arrangement. Examination of the Company's revenue proof indicates that the
11 total discounts during the test year were approximately \$12,500, but penalties assessed
12 were approximately \$4,500.²⁷ I recommend the adoption of this modification.

13
14 To reflect the small decrease, I recommend that the BSC (customer) and demand rates be
15 reduced across the board.

16
17 **Q. Is the Company's proposal to modify Rate Schedules E-47 Dusk to Dawn Lighting**
18 **Service and E-58 Street Lighting Service appropriate?**

19 A. The Company is proposing to add a trip charge to this rate²⁸ that would apply when the
20 Company is not the responsible party for maintaining the lights and the Company is
21 requested by the customer to disconnect or reconnect service.²⁹ The addition of a trip
22 charge is a means of protecting other customers from costs caused by the requests of a
23 single customer. I recommend the adoption of this charge.

24

²⁶ Miessner Direct 24:6

²⁷ Work Paper CAM_WP13 sheet E-221

²⁸ Miessner Direct Attachment CAM-8

²⁹ Miessner Direct 23:14

1 For lighting equipment greater than \$25,000, the Company is proposing a financial
2 liability agreement as a special provision for E-47, but this provision is not included in E-
3 58. I recommend the adoption of this measure for both schedules³⁰ which will reduce
4 risks for other customers.

5
6 To reflect the small decrease, I recommend that the lighting rates be reduced across the
7 board.

8
9 **Q. The Company is proposing a number of miscellaneous tariff changes. Have you**
10 **reviewed those proposals?**

11 A. Yes. The Company proposes to split the existing rate schedule E-36 into two tiers with a
12 break point at 3 MW.³¹ This schedule applies to merchant generators that require starting
13 and station service. I recommend the adoption of this modification; however, the Revenue
14 Cycle Charges for E-32 M do not seem to fit "between" the XS and L charges and the
15 Company should confirm the proposed charges.

16
17 The Company is proposing to allow participation for wind, geothermal, biomass and
18 biogas in addition to the existing solar generation under Rate Schedule SC-S (retitled E-56
19 R).³² The redlined tariff sheet does not show the requested change.³³ The intent appears
20 to be to encourage these additional forms of renewable energy. I recommend that the
21 Company provide a revised sheet for consideration, and assuming no significant changes,
22 I support this change.
23

³⁰ The testimony implies both schedules but E-58 does not include that provision (Miessner Direct 24:1)

³¹ Miessner Direct 26:11

³² Miessner Direct 26:5

³³ Work Paper CAM_WP14 sheet 181

1 In the interest of rate simplification, I support the Company's proposal to discontinue Rate
2 Schedules E-40, Solar-2 and Solar-3. One, none and two customers use these rate
3 schedules respectively.³⁴
4

5 **Q. Have you reviewed Rate Rider Schedule CPP-GS?**

6 A. Yes. Rate Rider Schedule CPP-GS should be revised to eliminate the energy discount for
7 any month that a customer fails to provide a load reduction during a critical event as
8 defined in its load reduction plan. If the customer fails to provide the load reduction for
9 two months within an annual summer period, then the customer should be removed from
10 the program and the rider should not apply. The present construction of the rider provides
11 for a discount on all energy during the June through September billing cycles along with a
12 further payment for critical peak price reductions during a critical event. There is no
13 penalty for not providing a load reduction during a critical event. Adding this penalty will
14 preclude customers from "gaming" this rider.
15

16 **Q. Do you have any overall recommendations as a result of your decoupling and rate**
17 **design review in this case?**

18 A. The Company has not conducted any specific rate research other than as part of its usual
19 rate design process.³⁵ As recommended in the Staff decoupling testimony, the Company
20 should plan and perform rate research. The Company has a wide range of rate schedules,
21 including some that are frozen, and it continues to experiment with new concepts. The
22 Company should be required to define for the Staff a rate research plan within three
23 months of a Decision in this case, complete the plan within an additional nine months, and
24 then provide the results to Staff. The plan should at a minimum include:
25

³⁴ Miessner Direct 24:23

³⁵ APS Response to STF 3.26

- 1 • Reviewing or justifying the existing blocks and tiers within rate schedules in light
- 2 of recent load research, appliance saturation, new uses such as heat pump water
- 3 heaters, energy efficient computers, televisions and the penetration of energy
- 4 efficient appliances
- 5 • Providing the timing or triggers for the elimination of existing frozen rates
- 6 • Determining analysis methods and standards for making an experimental rate
- 7 permanent or withdrawing that rate
- 8 • Determining whether adjustors should be embedded within, partially embedded or
- 9 separate from existing rates
- 10 • Analyzing whether more complicated and/or varied rate forms are productive and
- 11 understood by customers
- 12 • Determining if, when and how distribution (delivery) rates might shift from
- 13 volumetric to demand based to eliminate the need for a decoupling mechanism
- 14

15 **Q. Does this conclude your testimony?**

16 **A. Yes it does.**

Direct Testimony of Howard Solganick
Docket No. E-01345A-11-0224
Attachment HS-5

Testimony - Howard Solganick

Public Service Commission of Delaware

Case - Delmarva Power & Light Company Docket No. 10-237 (October 2010)

Client - Staff of the Delaware Public Service Commission

Scope - Testimony covered cost of service, revenue allocation, rate design and other related issues including revenue stabilization and miscellaneous charges.

Case - Delmarva Power & Light Company Docket No. 09-414 (February 2010)

Client - Staff of the Delaware Public Service Commission

Scope - Testimony covered cost of service, revenue allocation, rate design and other related issues including revenue stabilization and weather normalization.

Case - Delmarva Power & Light Company Docket No. 09-277T (November 2009)

Client - Staff of the Delaware Public Service Commission

Scope - Testimony covered an analysis of a straight fixed variable rate design for small gas customers and implementation issues.

Case - Delmarva Power & Light Company Docket No. 06-284 (January 2007)

Client - Staff of the Delaware Public Service Commission

Scope - Testimony covered cost of service, revenue allocation, rate design and other related issues including revenue stabilization or normalization.

Georgia Public Service Commission

Case - Atlanta Gas Light Company Docket No. 31647 (August 2010)

Client - Public Interest Advocacy Staff of the Georgia Public Service Commission

Scope - Testimony covered revenue forecast, cost of service, revenue allocation, rate design and other related issues.

Case - Atmos Energy Corporation Docket No. 27163 (July 2008)

Client - Public Interest Advocacy Staff of the Georgia Public Service Commission

Scope - Testimony covered rate design and other related issues.

Jamaica (West Indies) Office of Utility Regulation

Case - Electricity Appeals Tribunal (August 2007)

Client - Jamaica public Service Company, Ltd.

Scope - "Witness Statement" on behalf of the Jamaica Public Service Company Limited. This Statement covered issues relating to recovery of expenses incurred due to Hurricane Ivan.

Maine Public Utilities Commission

Case - Northern Utilities, Accelerated Cast Iron Replacement Program Docket No. 2005-813 (2005)

Client - Public Advocate of the State of Maine

Scope - Testimony covered an analysis of the program's economics and implementation.

Direct Testimony of Howard Solganick
Docket No. E-01345A-11-0224
Attachment HS-5

Public Service Commission of Maryland

Case - Chesapeake Utilities Corporation Case No. 9062 (August 2006)

Client - Office of the Maryland People's Counsel

Scope - Testimony covered cost of service, rate design and other related issues.

Case - Baltimore Gas & Electric's (1993)

Client - As president of the Mid Atlantic Independent Power Producers

Scope - Testimony covered BG&E's capacity procurement plans.

Michigan Public Service Commission

Case - Consumers Energy Company Case No. U-15245 (November 2007)

Client - Attorney General Michael A. Cox (Don Erickson, Esq.)

Scope - Testimony covered cost of service, rate design and revenue allocation.

Case - Consumers Energy Company Case No. U-15190 (July 2007)

Client - Attorney General Michael A. Cox (Don Erickson, Esq.)

Scope - Testimony covered issues related to Consumers Energy's gas revenue decoupling proposal.

Case - Consumers Energy Company Case No. U-15001 (June 2007)

Client - Attorney General Michael A. Cox (Don Erickson, Esq.)

Scope - Testimony covered issues related to Consumers Energy and the MCV Partnership.

Case - Consumers Energy Company Case No. U-14981 (September 2006)

Client - Attorney General Michael A. Cox (Don Erickson, Esq.)

Scope - Testimony covered issues relating to the sale of Consumers interest in the Midland Cogeneration Venture.

Case - Consumers Energy Company Case No. U-14347 (June 2005)

Client - Attorney General Michael A. Cox (Don Erickson, Esq.)

Scope - Testimony covered cost of service and revenue allocation.

Missouri Public Service Commission

Case - AmerenUE Storm Adequacy Review (July 2008)

Client - KEMA/AmerenUE

Scope - Oral testimony covered KEMA's review of AmerenUE's system major storm restoration efforts.

Case - Veolia Energy Kansas City, Inc. File No. HR-2011-0241 (September 2011)

Client - City of Kansas City, Missouri

Scope - Testimony covered various aspects of the Company's tariff provisions and the impact on the City of Kansas City.

Direct Testimony of Howard Solganick
Docket No. E-01345A-11-0224
Attachment HS-5

New Jersey Board of Public Utilities

Case - Cogeneration and Alternate Energy Docket # 8010-687 (1981)

Case - PURPA Rate Design and Lifeline Docket # 8010-687 (1981)

Case - Atlantic Electric Rate Case - Phases I & II Docket # 822-116 (1982)

Case - Power Supply Contract Litigation – Wilmington Thermal Systems Docket # 2755-89 (1989)

Case - NJBPU Atlantic Electric Rate Case - Phase II (1980-81) Docket # 7911-951 (Before the Commissioners of the New Jersey Board of Public Utilities)

Client - Employer was Atlantic City Electric Company.

Scope - The cases listed above covered load forecasting, capacity planning, load research, cost of service, rate design and power procurement.

Public Utilities Commission of Ohio

Case - The Application of Ohio Edison Company, The Cleveland Electric Illuminating Company, and The Toledo Edison Company Case 07-551-EL-AIR (January 2008)

Client - Ohio Schools Council

Scope - Testimony covers issues related to rate treatment of schools.

Case - The Application of the Columbus Southern Power Company 08-917-EL-SSO and the Ohio Power Company Case 08-918-EL-SSO (October 2008)

Client - Ohio Hospital Association

Scope - Testimony covers issues related to rates for net metering and alternate feed service and related treatment of hospitals.

Pennsylvania Public Utilities Commission

Case - York Water Company Docket No. R-00061322 (July 2006)

Client - Pennsylvania Office of Consumer Advocate

Subject - Testimony covered cost of service, rate design and other related issues, also supported the settlement process.

Case – Pennsylvania- American Water Company Docket No. R-2008-232689 (August 2010)

Client – Municipal Sewer Group

Subject - Testimony covered capacity planning, construction, treatment of future load and associated revenue, cost of service, rate design, capacity fee and other related issues.

Case – Pennsylvania- American Water Company Docket No. R-2008-232689 (August 2008)

Client – Municipal Sewer Group

Subject - Testimony covered cost of service, rate design, capacity fee and other related issues, also supported the settlement process.

Direct Testimony of Howard Solganick
Docket No. E-01345A-11-0224
Attachment HS-5

Public Utilities Commission of Texas

Case – Determination of Hurricane Restoration Costs Docket No. 36918 (April 2009)

Client – CenterPoint Energy Houston Electric, LLC

Subject – Testimony covered the reasonableness of the client's Hurricane Ike restoration process for an outage covering over two million customers and a restoration period of 18 days.

Attachment HS-6

Staff Revenue Allocation

Line No.	Customer Classification	(A) Present Rates 1, 2 (\$000)	(B) Proposed Increase 3 (\$000)	(C) % (B) / (A)
1	Residential	1,470,134	(3,814)	-0.26%
2				
3	General Service	1,342,599	(3,483)	-0.26%
4				
5	Irrigation/Water Pumping	26,669	(69)	-0.26%
6				
7	Outdoor Lighting	20,999	(54)	-0.26%
8				
9	Dusk to Dawn Lighting Service	8,457	(22)	-0.26%
10				
11				
12	Total Sales to Ultimate Retail Customers	2,868,858	(7,443)	-0.26%

NOTES TO SCHEDULE:

- 1) Base Revenues under Present Rates reflect adjusted test year revenues including Company proforma adjustments.
- 2) Present Rates - base revenues include transmission.
- 30 Revenue Increase from Staff witness Smith

Attachment HS-7

Residential Rate Design

Line No.	Proposed Residential Increase	(A)	\$
1			(3,814,133)
2			
3			
4	Customer Classification	Average	
5	and Current Rate Designation	Number of	
6		Customers	
7	Residential		
8	E-12	449,101	
9	ET-1	278,353	
10	ET-2	114,450	
11	ECT-2	38,017	
12	ECT-1R	47,380	
13	ET-SP	108	
14	E-12 Low income	36,296	
15	ET-1 low income	15,267	
16	ET-2 low income	8,588	
17	ECT-2 low income	1,431	
18	ECT-1R Low income	998	
19			
20	Total Residential	989,989	
21			
22	Total Residential Customer Days	361,345,985	
23			
24	BSC - Increase per Residential Customer Day		(0.010555)

Data Source

(A) CAM_WP13 Schedule H-2 Col (B)

Line No.	Program Tier	Present Residential Rates vs. Present Low Income Rates					Subtotal
		E-12 L	ET-1 L	ET-2 L	ECT-2 L	ECT-1R L	
1	E-3						
2	Tier 1	516,781	88,353	37,499	3,547	3,186	649,366
3	Tier 2	1,270,607	446,242	223,824	25,729	17,325	1,983,727
4	Tier 3	998,991	584,618	346,690	43,723	30,159	2,004,181
5	Tier 4	1,832,965	1,805,180	1,197,430	282,807	182,733	5,301,115
6							
7	E-4						
8	Tier 1	13,697	3,167	1,280	235	174	18,553
9	Tier 2	16,005	7,120	3,752	924	630	28,431
10	Tier 3	5,396	6,365	3,231	886	673	16,551
11	Tier 4	5,555	8,136	5,019	1,802	1,545	22,057
12							
13	E-3	4,619,344	2,924,393	1,805,443	355,806	233,403	9,938,389
14	E-4	40,653	24,788	13,282	3,847	3,022	85,592
15							
16	Total	4,659,997	2,949,181	1,818,725	359,653	236,425	10,023,981

Attachment HS-8

Page 2

Present Discounts Below Current Low Income Rates

E-12 L	ET-1 L	ET-2 L	ECT-2 L	ECT-1R L	Subtotal
1,615,269	273,617	115,224	11,023	9,984	2,025,117
2,576,381	895,863	444,950	51,891	35,310	4,004,395
1,089,806	631,143	370,263	47,451	33,103	2,171,766
731,752	915,344	587,429	136,113	80,871	2,451,509
42,738	9,786	3,918	731	544	57,717
32,423	14,274	7,439	1,862	1,285	57,283
5,884	6,865	3,444	961	738	17,892
2,807	6,054	3,702	1,428	1,221	15,212
6,013,208	2,715,967	1,517,866	246,478	159,268	10,652,787
83,852	36,979	18,503	4,982	3,788	148,104
6,097,060	2,752,946	1,536,369	251,460	163,056	10,800,891

Attachment HS-8

Page 3

Rate Differential	Low-Income Discount	PSA-1	DSMAC	Total Program Discount
649,366	2,025,117	-246,350	118,299	2,546,431
1,983,727	4,004,395	-839,243	403,009	5,551,888
2,004,181	2,171,766	-847,015	406,741	3,735,673
5,301,115	2,451,509	-2,117,506	1,016,837	6,651,955
18,553	57,717	-7,894	3,791	72,167
28,431	57,283	-12,057	5,790	79,447
16,551	17,892	-7,289	3,500	30,654
22,057	15,212	-9,618	4,618	32,270
9,938,389	10,652,787	-4,050,115	1,944,886	18,485,947
85,592	148,104	-36,857	17,699	214,538
10,023,981	10,800,891	-4,086,972	1,962,585	18,700,484

Attachment HS-8

Page 4

Total Base Revenue @ Non "L" Rates	Tier % Discount	Customer Bills	Maximum Discount
5,712,158	44.58%		
17,385,244	31.93%		
17,516,797	21.33%		
44,747,397		188,577	\$ 35.27
162,847	44.32%		
248,751	31.94%		
144,358	21.24%		
189,605		584	\$ 55.26
85,361,596			
745,560			
86,107,157			

BEFORE THE ARIZONA CORPORATION COMMISSION

GARY PIERCE

Chairman

BOB STUMP

Commissioner

SANDRA D. KENNEDY

Commissioner

PAUL NEWMAN

Commissioner

BRENDA BURNS

Commissioner

IN THE MATTER OF THE APPLICATION OF) DOCKET NO. E-01345A-11-0224
ARIZONA PUBLIC SERVICE COMPANY FOR)
A HEARING TO DETERMINE THE FAIR)
VALUE OF THE UTILITY PROPERTY OF THE)
COMPANY FOR RATEMAKING PURPOSES,)
TO FIX A JUST AND REASONABLE RATE OF)
RETURN THEREON, TO APPROVE RATE)
SCHEDULES DESIGNED TO DEVELOP SUCH)
RETURN.)
_____)

DIRECT

TESTIMONY

OF

LAURA A. FURREY

ELECTRICITY SPECIALIST

UTILITIES DIVISION

ARIZONA CORPORATION COMMISSION

DECEMBER 2, 2011

TABLE OF CONTENTS

	PAGE
INTRODUCTION	1
SUMMARY OF TESTIMONY AND RECOMMENDATIONS	2
RENEWABLE ENERGY STANDARD AND TARIFF	3
DEMAND SIDE MANAGEMENT	5
CONCLUSION.....	12

1 **INTRODUCTION**

2 **Q. Please state your name, occupation, and business address.**

3 A. My name is Laura Furrey. I am an Electricity Specialist employed by the Arizona
4 Corporation Commission ("ACC" or "Commission") in the Utilities Division ("Staff").
5 My business address is 1200 West Washington Street, Phoenix, Arizona 85007.

6
7 **Q. Briefly describe your responsibilities as an Electricity Specialist.**

8 A. In my capacity as an Electricity Specialist, I provide Staff recommendations to the
9 Commission in a variety of electricity-related cases, including renewable energy projects
10 and demand-side management programs. I also perform research on energy-related topics
11 as needed.

12
13 **Q. Please describe your educational background and professional experience.**

14 A. In 2002, I graduated from California Polytechnic State University – San Luis Obispo,
15 receiving a Bachelor of Science degree in Environmental Engineering. In 2003, I joined
16 Stanley Consultants, Inc. in Phoenix, Arizona as a civil designer. In 2005, I became a
17 licensed professional engineer in the State of California. In 2008, I graduated cum laude
18 from Vermont Law School with a Juris Doctor degree, focusing on energy and
19 environmental law and began working with the American Council for an Energy-Efficient
20 Economy in Washington, DC. In 2009, I became a member of the State Bar of Arizona
21 and I became employed with the Staff of the Commission in 2010 as an Electricity
22 Specialist in the Telecom and Energy Unit. Since that time, I have attended various
23 seminars and classes on general regulatory and energy issues.

24

1 **Q. What is the scope of your testimony in this case?**

2 A. My testimony addresses the inclusion of carrying costs in the Renewable Energy Standard
3 ("RES") adjustor and the Demand Side Management Adjustor Charge ("DSMAC"); the
4 requirement that changes to the RES adjustor rate and caps on such rates be proportional;
5 and the structure of Arizona Public Service Company's ("APS" or "Company")
6 performance incentive related to investments in Demand Side Management ("DSM").
7

8 **SUMMARY OF TESTIMONY AND RECOMMENDATIONS**

9 **Q. Please summarize your recommendations.**

10 A. Staff recommends that APS no longer be permitted to recover carrying costs for renewable
11 energy-related capital investments beginning with the Company's 2013 REST Plan other
12 than what is necessary to meet the extra renewable energy mandates placed on APS in
13 Section 15 of the Settlement Agreement approved by Decision No. 71448. Staff also
14 recommends that the proportionality requirement associated with the RES adjustor rate
15 and associated caps be removed, providing the Commission greater flexibility in setting
16 the RES adjustor rate and related caps.
17

18 Related to APS' DSM activities, Staff recommends that APS no longer be permitted to
19 recover carrying costs for DSM-related capital investments beginning with the Company's
20 2013 DSM Implementation Plan. Staff has also proposed a new performance incentive
21 structure for APS and has made a number of suggestions for altering the structure of the
22 performance incentive between the current rate case and the next.
23

RENEWABLE ENERGY STANDARD AND TARIFF

Q. Is APS currently permitted to recover carrying costs for capital investments by APS in renewable energy projects through the RES Adjustor?

A. Yes. Pursuant to the Settlement Agreement approved in Decision No. 71448 (December 30, 2009), APS may recover "all reasonable and prudent expenses incurred by APS ... recoverable through ... a renewable energy adjustment mechanism... [including] the capital carrying costs of any capital investments by APS in renewable energy projects (depreciation expenses at rates established by the Commission, property taxes, and return on both debt and equity at the pre-tax weighted average cost of capital)."

Q. What was the purpose of allowing APS to recover carrying costs for renewable energy-related capital investments?

A. According to Section 15.7 of the Settlement Agreement (Decision No. 71448), allowing recovery of carrying costs would encourage least cost renewable resources to benefit customers.

Q. Are renewable energy-related capital investments treated differently than other generating investments made by APS?

A. Yes. Other generating investments made by APS between rate cases do not receive similar carrying cost and other recovery treatment prior to their inclusion in rate base in an APS rate proceeding. Other generating investments are included in rate base subsequent to a Commission determination that such investments were reasonable, and prudent, used and useful.

1 **Q. What is Staff's recommendation regarding recovery of carrying costs through the**
2 **RES adjustor?**

3 A. Staff believes that as the renewable energy generation industry matures, it should receive
4 similar treatment to other generation facilities, which APS constructs and then seeks
5 recovery of in future rate proceedings. Staff recommends that APS continue to recover
6 carrying costs through the RES adjustor for renewable energy-related capital investments
7 made pursuant to Section 15 of the Settlement Agreement (Decision No. 71448), such as
8 those made within the AZ Sun Program,¹ the Community Power Project,² and the Schools
9 and Government Program.³ Beginning with the Company's 2013 REST Plan filing,
10 however, Staff recommends that carrying costs for renewable energy-related capital
11 investments (those not addressed by Section 15 of the Settlement Agreement (Decision
12 No. 71448)) not be recoverable through the RES adjustor but that APS seek recovery of
13 those costs in its next general rate proceeding.
14

15 **Q. Has the Commission addressed the rate design for the RES adjustor?**

16 A. Yes. In Decision No. 67744 (April 7, 2005), the Commission approved a Settlement
17 Agreement which maintained the proportions between customers in the then-current EPS
18 surcharge. According to that decision, any changes to EPS surcharges, now the RES
19 adjustor, must be made proportionally across customer classes.
20

21 **Q. What is Staff's recommendation regarding the proportionality requirement?**

22 A. At this point in time, Staff recommends the elimination of the requirement that any
23 changes to the RES adjustor rate and associated caps no longer need to be made

¹ Decision Nos. 71459 (January 11, 2010) and 71502 (March 17, 2010).

² Decision No. 71646 (April 14, 2010).

³ Decision No. 72022 (December 10, 2010), as amended by Decision No. 72174 (February 11, 2011).

1 proportionally across customer classes. This recommendation will provide the
2 Commission greater flexibility in setting the RES adjustor rate and related caps.

3
4 **Q. Why is greater flexibility in designing the REST surcharge desirable?**

5 A. Through rate design, the Commission determines how the Company will recover a given
6 amount of revenue. Factors affecting appropriate rate design can change over time. The
7 rate design that was appropriate in 2005 when the current proportions were determined is
8 unlikely to remain appropriate indefinitely. The Commission needs the flexibility to be
9 able to address any changing circumstances.

10
11 **DEMAND SIDE MANAGEMENT**

12 **Q. Does APS currently recover carrying costs through the DSMAC for DSM-related**
13 **capital investments?**

14 A. Yes. APS has been approved to recover carrying costs through the DSMAC for DSM-
15 related capital investments. For example, APS was recently approved in Decision No.
16 72214 (March 3, 2011) to recover carrying costs through the DSMAC for capital
17 investments made by the Company related to its Home Energy Information Pilot Program.

18
19 **Q. What is Staff's recommendation regarding recovery of carrying costs through the**
20 **DSMAC?**

21 A. Staff believes that as APS continues to invest in Energy Efficiency and Demand Response
22 at increasing levels and as these resources shift to represent a larger percentage of APS'
23 resource portfolio, these demand-side investments should receive similar treatment to
24 other resources in APS' resource portfolio, for which APS seeks recovery of its
25 investment in future rate proceedings. Staff recommends that APS continue to recover
26 carrying costs through the DSMAC for DSM-related capital investments made prior to the

1 filing of the Company's 2013 DSM Implementation Plan. Beginning with the Company's
2 2013 DSM Implementation Plan filing, however, Staff recommends that carrying costs for
3 DSM-related capital investments no longer be recoverable through the DSMAC but that
4 APS seek recovery of those costs in its next general rate proceeding.

5
6 **Q. What purpose does a performance incentive serve?**

7 A. A performance incentive on energy efficiency investments should affect utility decision-
8 making and reward the utility for achieving the most cost-effective energy savings
9 available.

10
11 **Q. Is APS' current performance incentive structure designed to reward the Company
12 for achieving the most cost-effective energy savings available?**

13 A. In theory, yes; but in practice, no. The current incentive structure essentially rewards the
14 Company for attaining the prescribed savings target but not for doing so cost-effectively.
15 Although programs included in the DSM portfolio are typically cost-effective, APS'
16 reward has been based on a percentage of program spending. Although the Company
17 could also receive a percentage of net benefits, there is no mechanism in place to ensure
18 that these benefits have been achieved by the most cost-effective means possible.

19
20 **Q. Please explain how APS' performance incentive works in practice.**

21 A. The current performance incentive structure which was established in Decision No. 71448
22 in paragraph 14.2 of the Settlement Agreement in the Company's last rate case is
23 displayed in the table below.
24

Achievement Relative to the Energy Efficiency Standard	Performance Incentive as % of Net Benefits	Performance Incentive Capped at % of Program Costs
<85%	0%	0%
85% to 95%	6%	12%
96% to 105%	7%	14%
106% to 115%	8%	16%
116% to 125%	9%	18%
>125%	10%	20%

1
2 After determining the level of energy savings the DSM Plan will achieve relative to the
3 Energy Efficiency Standard for the relevant year, the performance incentive is calculated
4 as a corresponding percent of the net benefits (benefits less costs) achieved by the
5 program.

6
7 However, the level of the performance incentive is capped at a corresponding percent of
8 program costs. If APS plans to achieve 100 percent of the Energy Efficiency Standard, for
9 example, it will receive 7 percent of net benefits, capped at 14 percent of program costs
10 for that year.

11
12 **Q. What level of performance incentives has APS currently been achieving since**
13 **implementation of the current performance incentive structure?**

14 A. The current performance incentive structure was first utilized for energy efficiency
15 programs implemented in 2010. APS' performance incentive for that year was \$6,119,686,
16 or 14 percent of program costs.⁴ For utilities nation-wide that receive a performance
17 incentive, the average incentive earned is 10-11 percent of program spending.⁵

⁴ "Program costs" include total spending for residential and non-residential energy efficiency programs and Measurement, Evaluation and Research.

⁵ Sara Hayes, et al. Carrots for Utilities: Providing Financial Returns for Utility Investments in Energy Efficiency. American Council for an Energy Efficient Economy, Report No. U111 (January 2011).

1 **Q. Has APS filed a DSM Implementation Plan for 2012 ("2012 Plan")?**

2 A. APS filed its proposed DSM Implementation Plan on June 1, 2011 in Docket No. E-
3 01345A-11-0232.

4
5 **Q. What level of performance incentive did APS propose in its 2012 DSM**
6 **Implementation Plan?**

7 A. Under the current tiered structure of APS' performance incentive, APS proposes a
8 performance incentive in the amount of \$9.55 million. In proposing this amount, APS has
9 also proposed a portfolio of DSM programs which aim to meet 100 percent of the Energy
10 Efficiency Standard for 2012. This proposed performance incentive is approximately 14
11 percent of the proposed program costs, which total \$68,212,521, for the 2012 Plan.

12
13 **Q. Does Staff agree with the level of the proposed performance incentive for 2012?**

14 A. No. Ignoring any other issues Staff may have with APS' proposed 2012 Plan, keeping
15 APS' budget at the proposed level and accepting all programs as proposed such that APS
16 meets 100 percent of the Energy Efficiency Standard for 2012, Staff's analysis of the
17 performance incentive would lead to a performance incentive that is approximately 35
18 percent lower than that proposed by APS, representing approximately 9 percent of
19 program costs.

20
21 **Q. Why is Staff's level of performance incentive lower than that proposed by APS?**

22 A. Staff and APS do not use the same inputs or methodology in calculating the present value
23 societal benefits or costs for DSM programs and measures. As a result, Staff's analysis
24 results in a lower level of net benefits for the 2012 Plan. Using Staff's inputs and
25 methodology, APS' performance incentive would be based on 7 percent of net benefits
26 rather than the cap amount of 14 percent of program costs.

1 **Q. What is Staff's proposal for an energy efficiency performance incentive in this rate**
2 **case?**

3 A. Staff proposes, in this rate case, that APS be required to use the same inputs and
4 methodology as Staff in calculating present value benefits and costs utilizing the Societal
5 Cost Test, as prescribed by Arizona Administrative Code R14-2-2401, *et seq*, for DSM
6 Implementation Plans filed subsequent to the Commission's Decision in this matter. It is
7 Staff's expectation that, in using the same inputs and methodology, APS' resulting
8 performance incentive will be based on a percentage of net benefits rather than a
9 percentage of program costs. The more cost-effective that programs and measures are, the
10 greater the net benefits will be. Staff does not, however, recommend removing the
11 performance incentive cap as a percentage of program costs at this time. Staff
12 recommends this as a gradual transition to better align APS' performance incentive with
13 the goal of rewarding the Company for achieving the most cost-effective energy savings
14 available.

15
16 Staff also recommends that APS' performance incentive tiers be restricted to a maximum
17 tier of savings that is greater than 105 percent of the Energy Efficiency Standard, as
18 displayed in the table below. Savings goals and incentive caps that are too easily met
19 invalidate the rationale for an incentive. If APS consistently achieves greater than 100
20 percent of the prescribed Energy Efficiency Standard, it would no longer be extraordinary
21 performance that should be rewarded but would be business as usual. Staff does not
22 recommend changing the percentage of net benefits or program costs assigned to each tier.
23

Achievement Relative to the Energy Efficiency Goals	Performance Incentive as % of Net Benefits	Performance Incentive Capped at % of Program Costs
<85%	0%	0%
85% to 95%	6%	12%
96% to 105%	7%	14%
> 105%	8%	16%

1
2 **Q. Does Staff have any other recommendations?**

3 A. Yes. Staff recommends that APS work with interested stakeholders and Staff between this
4 rate case and the next to develop a performance incentive that optimizes the connection
5 between energy efficiency, rates and utility business incentives and that creates a clear
6 connection between the level of performance incentive and the Company's ability to
7 achieve the most cost-effective energy savings available.

8
9 Under the current structure, APS is encouraged to spend more money to achieve the
10 prescribed savings target for a given year. There is no encouragement for the Company to
11 reach the prescribed target for the least amount of money possible. In fact, the Company
12 is encouraged to achieve the savings target for the maximum level of program costs the
13 Commission will approve, earning the Company higher incentives as the target increases
14 year to year.

15
16 **Q. On what metrics does Staff propose APS' performance incentive ultimately be**
17 **based?**

18 A. To steer the Company towards an incentive structure that more closely ties the Company's
19 reward to cost-effective energy savings, Staff suggests utilizing the following performance
20 incentive metrics:

- Price per kWh of delivered energy efficiency;
- Benefit-cost ratio for Residential programs;
- Benefit-cost ratio for Non-Residential programs;

Q. How does Measurement, Evaluation and Research (“MER”) play a role in calculating the performance incentive?

A. Actual kWh savings need to be verified to confirm that the proposed savings were actually achieved. The actual kWh savings, and whether APS has reached 100 percent of the prescribed Energy Efficiency Standard for a given year, will potentially affect which performance incentive tier that the Company falls into for performance incentive purposes. The level of kWh savings also affects the net benefits of the programs which could also impact APS’ performance incentive.

Moving forward, MER results can be used to verify the cost-effectiveness and the benefit-cost ratios of programs and measures. Additionally, the price per kWh of delivered energy efficiency will vary on the actual kWhs saved versus the savings forecast in the DSM Implementation Plan.

Q. How does Staff propose APS improve MER activities?

A. Staff recommends a third-party evaluation of APS’ energy efficiency programs and associated energy savings to verify figures reported by APS in its Annual DSM Progress Reports every five years. Staff suggests that APS pay for the independent evaluation to be conducted by an evaluator selected by Staff to ensure impartiality and independence on the part of the third-party evaluator. This information will help guide APS in forecasting the energy savings values for its energy efficiency programs and will reassure Staff that the values proposed by APS in its DSM Implementation Plans represent actual savings.

1 **CONCLUSION**

2 **Q. Does this conclude your Direct Testimony?**

3 **A. Yes, it does.**